What is claimed is:

1. A projection lens for forming an image of an object, said projection lens having a focal length f0 and consisting in order from its image side of:

(A) a first lens unit having a focal length f1 and comprising:

(i) a lens element having a focal length f_{E1}; and

(ii) at least one aspherical surface for correction of distortion; and

(B) a second lens unit having a focal length f2 and consisting in order from its image side of:

(i) a first lens subunit having a focal length $f2_{S1}$; and

(ii) a second lens subunit separated from the first lens subunit by an airspace and having a focal length $f2_{S2}$, said second lens subunit comprising: (a) at least one aspherical surface for correction of spherical aberration, and (b) means for providing axial color correction for the lens system;

wherein:

$|f1|/f0 > 0.75$;

$f_{E1} < 0$;

$f2 > 0$;

$f2/f0 < 2.0$

$f2_{S1} > 0$;

$f2_{S1}/f0 < 1.5$; and

$|f2_{S2}|/f0 > 1.5$.

2. A projection lens for forming an image of an object, said projection lens having a focal length f0 and consisting in order from its image side of:

(A) a first lens unit having a focal length f1 and comprising:

(i) a lens element having a focal length f_{E1}; and

(ii) at least one aspherical surface for correction of distortion; and

(B) a second lens unit having a focal length f2 and consisting in order from its image side of:

(i) a first lens subunit having a focal length $f2_{S1}$; and

(ii) a second lens subunit separated from the first lens subunit by an airspace and having a focal length $f2_{S2}$, said second lens subunit consisting in order from its image side of: (a) a negative lens element, (b) a positive lens element, and (c) a plastic lens element having at least one aspherical surface;

wherein:

$|f1|/f0 > 0.75$;

$f_{E1} < 0$;

$f2 > 0$;

$f2/f0 < 2.0$;

$f2_{S1} > 0$;

$f2_{S1}/f0 < 1.5$; and

$|f2_{S2}|/f0 > 1.5$.

3. The projection lens of Claim 2 wherein the plastic lens element of the second lens subunit has a positive on-axis power.

4. The projection lens of Claim 2 wherein the plastic lens element of the second lens subunit has a negative on-axis power.

5. The projection lens of Claim 2 wherein the negative lens element of the second lens subunit has a higher dispersion than the positive lens element of the second lens subunit.

6. The projection lens of Claim 1 or 2 wherein:

$|f_{E1}|/f0 < 1.5$.

7. The projection lens of Claim 1 or 2 wherein:

$t_{S1S2}/f0 > 0.1$,

where t_{S1S2} is the length of the airspace between the first and second lens subunits.

8. The projection lens of Claim 1 or 2 wherein the lens has a half field of view in the direction of the image of at least 35°.

9. The projection lens of Claim 1 or 2 wherein the maximum clear aperture of the first lens unit is greater than the maximum clear aperture of the second lens unit.

10. The projection lens of Claim 1 or 2 wherein the second lens unit has a rear principal point which is located ahead of the image end of the second lens subunit.

11. The projection lens of Claim 1 or 2 wherein the lens has a distortion which is less than one percent at the image.

12. The projection lens of Claim 1 or 2 wherein the object is a pixelized panel.

13. The projection lens of Claim 12 wherein the projection lens has a lateral color aberration which is less than a pixel at the object.

14. The projection lens of Claim 12 wherein the maximum clear aperture of the first lens unit is less than 0.7 times the diagonal of the pixelized panel.

15. A projection lens system for forming an image of an object, said system comprising:

(a) an illumination system comprising a light source and illumination optics which forms an image of the light source, said image of the light source being the output of the illumination system;

(b) a pixelized panel which comprises the object; and

(c) the projection lens of Claim 1 or 2.

16. The projection lens system of Claim 15 wherein the magnification of the system is changed by changing: (i) the distance between the projection lens and the pixelized panel; and (ii) the distance between the first and second lens units.

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